

**In the Claims:**

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- 2 A) Claims 2, 5, 7—10, 13, 19, 20, 22, 23 and 25 remain in their original
- 3 form.
- 4 B) Claim 27—29 and 31 are previously presented.
- 5 C) Claims 18 and 26 were previously cancelled.
- 6 D) Claims 1, 6, 14—17, 21 and 30 are currently amended.
- 7 E) Claims 3, 4, 11, 12 and 24 are currently cancelled.
- 8

9 1. (Currently Amended) A transaction processing system

10 comprising:

11 a database writer configured to process data in accordance with one or more

12 transactions within the transaction processing system;

13 a transaction monitor for monitoring transactions within the transaction

14 processing system;

15 a log writer for maintaining audit trail data associated with transactions

16 within the transaction processing system; and

17 one or more non-disk persistent memory units comprising a primary non-

18 disk persistent memory unit and a mirror non-disk persistent memory unit,

19 associated with the log writer and configured to receive, from the log writer, audit

20 trail data data;

21 wherein the log writer is configured to first write audit trail data to the

22 primary non-disk persistent memory unit and then write the audit trail data to the

23 mirror non-disk persistent memory unit.

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1           2.     (Original)    The transaction processing system of claim 1, wherein  
2     the log writer comprises a primary audit disk process and a backup audit disk  
3     process.

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5           3.     (Cancel)    ~~The transaction processing system of claim 1, wherein~~  
6     ~~said one or more non-disk persistent memory units comprises a primary non-disk~~  
7     ~~persistent memory unit and a mirror non-disk persistent memory unit.~~

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9           4.     (Cancel)    ~~The transaction processing system of claim 1, wherein~~  
10    ~~said one or more non-disk persistent memory units comprises a primary non-disk~~  
11    ~~persistent memory unit and a mirror non-disk persistent memory unit, and wherein~~  
12    ~~the log writer is configured to first write audit trail data to the primary non-disk~~  
13    ~~persistent memory unit and then write the audit trail data to the mirror non-disk~~  
14    ~~persistent memory unit.~~

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16          5.     (Original)   The transaction processing system of claim 1, wherein  
17     the one or more non-disk persistent memory units comprise a write aside buffer  
18     configured to receive the audit trail data, the write aside buffer being configured as  
19     a circular buffer.

1           6.   (Currently Amended)   A transaction processing system  
2 comprising:

3           a database writer configured to process data in accordance with one or more  
4 transactions within the transaction processing system;

5           a transaction monitor for monitoring transactions within the transaction  
6 processing system;

7           a log writer for maintaining audit trail data associated with transactions  
8 within the transaction processing system;

9           one or more non-disk persistent memory units associated with the log  
10 writer and configured to receive, from the log writer, audit trail data, wherein the  
11 memory units comprise a primary non-disk persistent memory unit and a mirror  
12 non-disk persistent memory unit; and

13           one or more audit log disks configured to receive audit trail data that is first  
14 received by the one or more non-disk persistent memory units;

15           wherein the log writer is configured to first write audit trail data to the  
16 primary non-disk persistent memory unit and then write the audit trail data to the  
17 mirror non-disk persistent memory unit.

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19           7.   (Original)   The system of claim 6, wherein the log writer is  
20 configured to cause the audit trail data in the one or more non-disk persistent  
21 memory units to be written to the one or more audit log disks when a non-disk  
22 persistent memory unit threshold is reached or exceeded.

1           8.     (Original)   The system of claim 6, wherein the transaction  
2 processing system is configured to commit transactions before associated audit  
3 trail data is written to the one or more audit log disks.

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5           9.     (Original)   The system of claim 6, wherein the transaction  
6 processing system is configured to commit transactions after associated audit trail  
7 data is received by the one or more non-disk persistent memory units and before  
8 the associated audit trail data is written to the one or more audit log disks.

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10          10.    (Original)   The system of claim 6, wherein the log writer  
11 comprises a primary audit disk process and a backup audit disk process.

12  
13          11.    (Cancel)   ~~The system of claim 6, wherein said one or more non-~~  
14 ~~disk persistent memory units comprises a primary non-disk persistent memory unit~~  
15 ~~and a mirror non-disk persistent memory unit.~~

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17          12.    (Cancel)   ~~The system of claim 6, wherein said one or more non-~~  
18 ~~disk persistent memory units comprises a primary non-disk persistent memory unit~~  
19 ~~and a mirror non-disk persistent memory unit, and wherein the log writer is~~  
20 ~~configured to first write audit trail data to the primary non-disk persistent memory~~  
21 ~~unit and then write the audit trail data to the mirror non-disk persistent memory~~  
22 ~~unit.~~

1           13. (Original) The system of claim 6, wherein the one or more non-  
2 disk persistent memory units comprise a write aside buffer configured to receive  
3 the audit trail data, the write aside buffer being configured as a circular buffer.  
4

5           14. (Currently Amended) A method comprising:  
6 receiving data associated with transaction-induced state changes, wherein  
7 the act of receiving is performed by a log writer comprising primary and backup  
8 audit disk processes; and

9 writing the received data to non-disk persistent memory sufficient to  
10 commit an associated transaction, wherein the act of writing comprises writing the  
11 received data to first and second non-disk persistent memory units.  
12

13           15. (Currently Amended) The method of claim 14, wherein ~~the act~~  
14 ~~of writing comprises writing the received data to first and second non-disk~~  
15 ~~persistent memory units, the first non-disk persistent memory unit comprising~~  
16 comprises a primary non-disk persistent memory unit, the unit and the second non-  
17 disk persistent memory unit ~~comprising comprises~~ a mirror non-disk persistent  
18 memory unit.  
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1           16. (Currently Amended)       The method of claim 14, wherein ~~the act~~  
2 ~~of writing comprises writing the received data to first and second non-disk~~  
3 ~~persistent memory units, the first non-disk persistent memory unit comprising~~  
4 comprises a primary non-disk persistent memory unit, the unit and the second non-  
5 disk persistent memory unit ~~comprising comprises~~ a mirror non-disk persistent  
6 memory unit, ~~the unit and the~~ act of writing ~~comprising comprises~~ first writing the  
7 received data to the primary non-disk persistent memory unit and then writing the  
8 received data to the mirror non-disk persistent memory unit.

9  
10           17. (Currently Amended)       The method of claim 14, wherein ~~the act~~  
11 ~~of writing comprises writing the received data to first and second non-disk~~  
12 ~~persistent memory units, the first non-disk persistent memory unit comprising~~  
13 comprises a primary non-disk persistent memory unit, the unit and the second non-  
14 disk persistent memory unit ~~comprising comprises~~ a mirror non-disk persistent  
15 memory unit, ~~the unit and the~~ act of writing ~~comprising comprises~~ concurrently  
16 writing the received data to the primary non-disk persistent memory unit and the  
17 mirror non-disk persistent memory unit.

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19           18. (Cancel)

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21           19. (Original)   The method of claim 14 further comprising after  
22 writing the received data to the non-disk persistent memory, writing the  
23 transaction-induced state change data to one or more audit log disks.

1           20. (Original) The method of claim 14 further comprising after  
2 writing the received data to the non-disk persistent memory, writing the  
3 transaction-induced state change data to one or more audit log disks, wherein the  
4 act of writing the transaction-induced state change data to the one or more audit  
5 log disks comprises doing so responsive to a threshold associated with the non-  
6 disk persistent memory being reached or exceeded.

7  
8           21. (Currently Amended) A method comprising:  
9 maintaining at least two write aside buffers in non-disk persistent memory,  
10 a first of the buffers comprising a primary buffer, a second of the buffers  
11 comprising a mirror buffer;

12 synchronously flushing audit data associated with one or more transactions  
13 to said at least two write aside buffers, wherein said act of synchronously flushing  
14 is sufficient to commit an associated transaction; and

15 when a predetermined condition is met, writing the audit data in the write  
16 aside buffers to one or more audit log disks.

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18           22. (Original) The method of claim 21, wherein the act of  
19 maintaining comprises maintaining said buffers as circular buffers.

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21           23. (Original) The method of claim 21, wherein the predetermined  
22 condition comprises a threshold condition.

1           24. (Cancel) ~~The method of claim 21, wherein said act of~~  
2 ~~synchronously flushing is sufficient to commit an associated transaction.~~

3  
4           25. (Original) The method of claim 21, wherein said acts are  
5 performed by a transaction processing system that comprises a database writer  
6 component, a transaction monitor component and a log writer component, each  
7 component being implemented as a primary-backup process pair.

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9           26. (Cancel)

10           27. (Previously Presented) A method comprising:  
11 receiving data associated with transaction-induced state changes; and  
12 writing the received data to non-disk persistent memory sufficient to  
13 commit an associated transaction, wherein the act of writing comprises writing the  
14 received data to first and second non-disk persistent memory units, the first non-  
15 disk persistent memory unit comprising a primary non-disk persistent memory  
16 unit, the second non-disk persistent memory unit comprising a mirror non-disk  
17 persistent memory unit.

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19           28. (Previously Presented) A method comprising:  
20 receiving data associated with transaction-induced state changes; and  
21 writing the received data to non-disk persistent memory sufficient to  
22 commit an associated transaction, wherein the act of writing comprises writing the  
23 received data to first and second non-disk persistent memory units, the first non-  
24 disk persistent memory unit comprising a primary non-disk persistent memory  
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1 unit, the second non-disk persistent memory unit comprising a mirror non-disk  
2 persistent memory unit, the act of writing comprising first writing the received  
3 data to the primary non-disk persistent memory unit and then writing the received  
4 data to the mirror non-disk persistent memory unit.

5  
6 29. (Previously Presented) A method comprising:  
7 receiving data associated with transaction-induced state changes; and  
8 writing the received data to non-disk persistent memory sufficient to  
9 commit an associated transaction, wherein the act of writing comprises writing the  
10 received data to first and second non-disk persistent memory units, the first non-  
11 disk persistent memory unit comprising a primary non-disk persistent memory  
12 unit, the second non-disk persistent memory unit comprising a mirror non-disk  
13 persistent memory unit, the act of writing comprising concurrently writing the  
14 received data to the primary non-disk persistent memory unit and the mirror non-  
15 disk persistent memory unit.

16  
17 30. (Currently Amended) A method comprising:  
18 receiving data associated with transaction-induced state changes;  
19 writing the received data to non-disk persistent memory sufficient to  
20 commit an associated transaction, wherein the act of writing comprises writing the  
21 received data to first and second non-disk persistent memory units; and  
22 after writing the received data to the non-disk persistent memory, writing  
23 the transaction-induced state change data to one or more audit log disks.  
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1           31.   (Previously Presented)    A method comprising:  
2           receiving data associated with transaction-induced state changes;  
3           writing the received data to non-disk persistent memory sufficient to  
4           commit an associated transaction; and  
5           after writing the received data to the non-disk persistent memory, writing  
6           the transaction-induced state change data to one or more audit log disks, wherein  
7           the act of writing the transaction-induced state change data to the one or more  
8           audit log disks comprises doing so responsive to a threshold associated with the  
9           non-disk persistent memory being reached or exceeded.